

IOLAUS NEWPORTI, A NEW SPECIES OF LYCAENIDAE FROM NIGERIA (LEPIDOPTERA: LYCAENIDAE)

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THE AIM of this paper is to describe a most interesting and unexpected new species of *Iolaus* collected by K. Stiff in the Guinea savannah zone of Nigeria and brought to my attention by Mike Newport, after whom it is named in appreciation of his assistance in my work on West African butterflies.

The genus *Iolaus* is a large and complex one with more than 100 described species, all of which feed on mistletoes (*Loranthaceae*). Most are rainforest butterflies, many with wide ranges covering much of Africa, while some are montane with very limited distributions. However, some are adapted to more arid conditions and are limited to the various savannah zones, sometimes extending almost into true desert conditions.

Many of the species are very local and therefore rarely found by collectors on flying visits. However, once a colony is found, small numbers may be collected at intervals in the same spot.

The genus was comprehensively revised by Stempffer & Bennett (1958/1959). Their meticulous study provided a foundation for further work on the genus and not surprisingly many additional species were subsequently published, since much unpublished material was present in collections. Additionally, several new species are known only, or mostly, from bred material.

Stempffer & Bennett (1958/1959) subdivided the genus into what Stempffer (1967) calls "pragmatic" subgenera, while maintaining *Iolaus* as a "kind of super-genus". There has been a tendency to elevate these subgenera to generic level (eg D'Abrera (1980)), but this is doing violence to Stempffer's carefully considered opinion.

***Iolaus (Iolaphilus) newporti* sp. nov.**

The new species pertains to the subgenus *Iolaphilus* in all essential characters. It is most closely related to the Ugandan *Iolaus (Iolaphilus) vansomereni* Stempffer & Bennett, 1958 in both colour pattern and genitalia but differs far too strongly to be considered a subspecies of that distinctive butterfly. Both sexes of *I. vansomereni* are well-illustrated in D'Abrera (1980) and the description of the new species will be made in relation to that species.

Male upperside: The length of the forewing is 20mm. The ground-colour is a light sky-blue of less intensity than is usual in the genus. The costa is blackish-brown along the basal half of the cell, then widening gradually to form a moderate apical patch, which tapers towards the tornus where it is about 1mm broad. There is a small tooth at the end of the cell, slightly darker than the rest of the costa, which is usually sufficient to distinguish

it from all other similar *Iolaus*. The dark markings of *I. vansomereni* are slightly more extensive and the end-cell tooth is missing. The hindwing is blue of the same tone as the forewing. The costa is whiteish and space 6 greyish. The black margin is narrow, widening to about 1mm at the apex. There are small black tornal spots in spaces 1b and 2, crowned by traces of submarginal line and the surrounding blue area slightly suffused with white. There is no trace of red. The androconial patch is silvery-grey with a darker grey centre. In *I. vansomereni* the hindwing has clear red spots, the dark margin is much wider, and the costa and space 6 blackish.

Male underside: The forewing is unmarked white. The androconial brushes are beige. The hindwing is white with a poorly developed line of submarginal/postdiscal spots that stops in space 3. There are modest red tornal spots in spaces 1b and 2. The underside is very similar to that of *I. vansomereni*.

Female upperside: The ground-colour is predominantly white. The forewing has the same markings as the male, but the dark margin at the tornus is broader (2mm). The characteristic tooth in the cell is present. There is blue basal shading to the extent of about half the cell and slightly less in spaces 1a and 1b. The hindwing has only the faintest traces of blue shading. The submarginal/postdiscal line of spots is better developed than in the male and continues to space 5. The anal lobe is crowned with red. There is a black tornal spot in space 1b and an orange spot in space 2. The margin is broader than in the male, widening gradually to 2mm at the apex.

Female underside: The underside is like the male except for a slightly more prominent submarginal/postdiscal line of spots that continues to space 5 or 6. It is very similar to the female of *I. ismenias* Klug, 1834 which usually lacks the characteristic tooth in the forewing cell and has considerably less basal blue shading on the upperside. The female of *I. vansomereni* has very extensive orange tornal markings and a much wider dark margin on the hindwing upperside. The female of *I. menas* Druce, 1890 is also white, but never has the tooth at the end of the forewing cell and the postdiscal black line on the hindwing is more regular, especially on the underside.

Male genitalia: The male genitalia are closest to those of *I. vansomereni*. The subunci are slightly longer. The valve is considerably more squat and the distal projection shorter and more toothed. Its inner edge is evenly rounded and the whole valve broader. There is a distinct lobe on the outer edge where the distal projection begins. The penis differs little in shape, but both of the massive cornuti are of equal size; the distal one is much shorter in *I. vansomereni*.

Male holotype: Zuru, Sokoto State, Nigeria, 2.v.1980 (K. Stiff leg. in coll. M. Stewart). Genitalia preparation Larsen AYN. The holotype will be placed in The Natural History Museum, London and the genitalia renumbered (No. 29357).

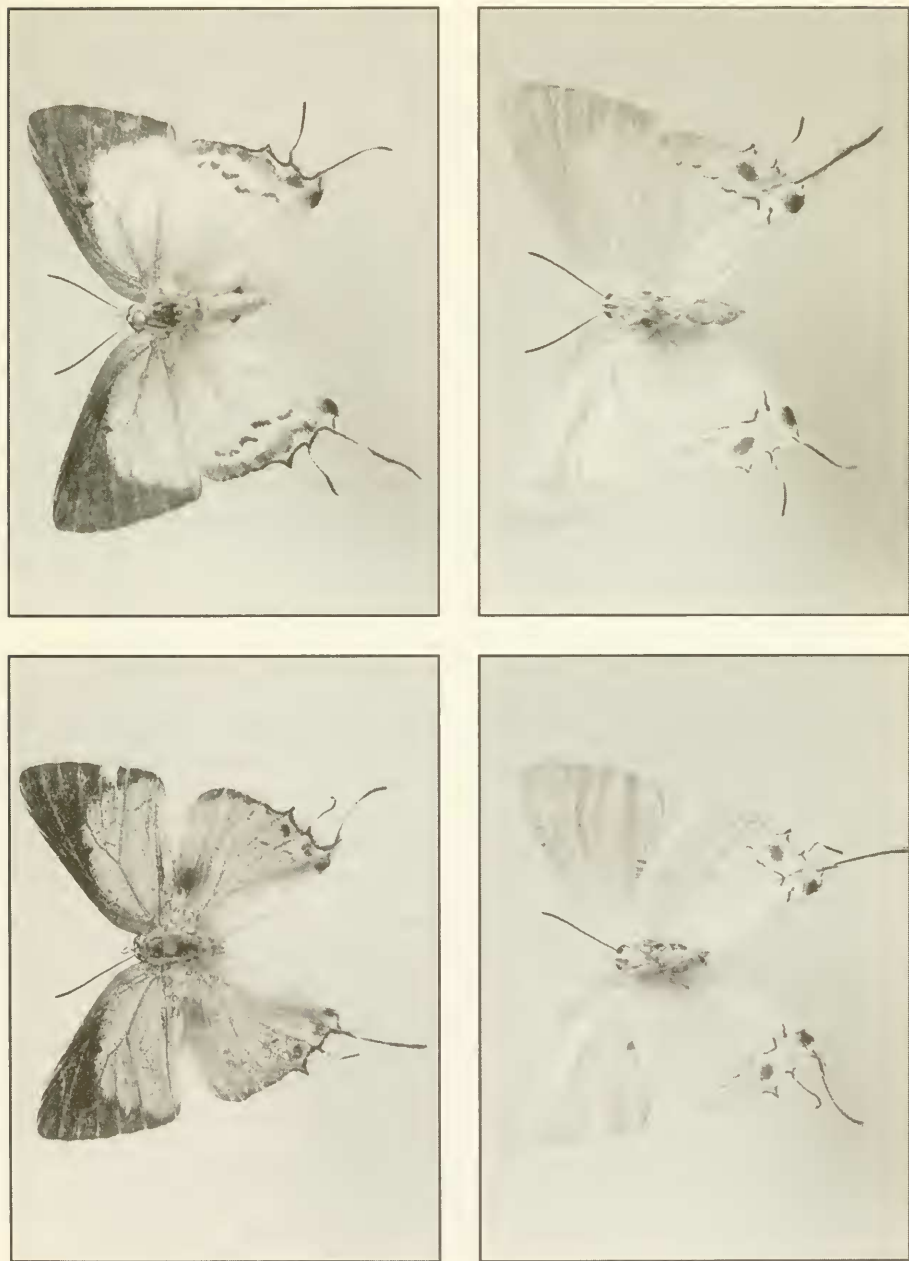


Fig. 1. *Iolaus (Iolophilus) newporti* sp. nov.
Top row: Uppersides. Bottom row: Undersides. Top left: Male holotype. Top right: Female paratype. Bottom: the same specimens, undersides.



Fig. 2. The male genitalia of *Iolaus (Iolaphilus) newportii* sp. nov.

Paratypes: Three males and one female from same locality between 24.iv and 2.v.1980 in colls. M. Newport and J. Stewart.

I have not visited the type area, which is near Lake Kainji, but from the latitude it should be in the transition zone between Guinea (long grass) and Sudan savannah. This habitat remains somewhat unexplored for butterflies. *Iolaus (Epamera) alienus bicaudatus* Aurivillius, 1905 has been caught in the same area by K. Stiff indicating a very dry habitat.

There are no specimens of *I. newporti* in The Natural History Museum, London and Steve Collins (pers. comm.) assures me that he could not have missed the species if specimens were present in the National Museum of Kenya, Nairobi, Musée Royal d'Afrique Central, Tervuren, or in the Musée National d'Histoire Naturelle in Paris. None is present in the Allyn Museum, Florida which houses a vast collection of Ghana butterflies.

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References

- D'Abrera, B., 1980. *Butterflies of the Afrotropical Region*. Lansdowne Press, Melbourne.
 Stempffer, H., 1967. The genera of the African Lycaenidae (Lepidoptera: Rhopalocera). *Bulletin of the British Museum, Natural History, (Entomology)*, supplement **10**: 1-322.
 Stempffer, H. & Bennett, N.H., 1958/1959. Révision des genres appartenant au groupe de *Iolaus* (Lep.: Lycaenidae). *Bulletin de l'Institut fondamental pour L'Afrique Noire*, sér. A, **20**: 1243-1347, and **21**: 227-325.